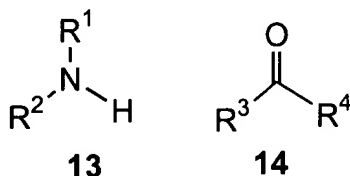Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-11. (Canceled).
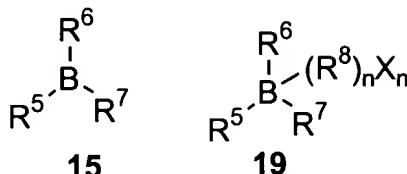
12. (currently amended) A combinatorial library ~~including~~ of a plurality of compounds,
wherein ~~one or more of~~ the plurality of compounds in the combinatorial library ~~being~~ are
prepared by a process comprising:

providing compounds of formula **13** and formula **14**

$$
\begin{array}{cc}
\underset{\textbf{13}}{R^2\text{-}\overset{\overset{\displaystyle R^1}{|}}{N}\text{-}H} & \underset{\textbf{14}}{R^3\text{-}\overset{\overset{\displaystyle O}{\|}}{C}\text{-}R^4}
\end{array}
$$

where R^1 and R^2 are each independently selected from the group consisting of
hydrogen, alkyl, cycloalkyl, aryl, heteroaryl, acyl, acylalkyl, carboxy,
carboxamido, trialkylsilyl, aryldialkylsilyl, diarylalkylsilyl, triarylsilyl,
phosphinyl, and -YR, where Y is selected from the group consisting of -O-, -NR_a-
, -S-, -SO-, and -SO_2-, and R and R_a are each independently selected from the
group consisting of hydrogen, alkyl, aryl, heteroaryl, and acyl, or R^1 and R^2
together form a methylene bridge of 2 to 20 carbon atoms; and
where R^3 and R^4 are each independently selected from the group consisting of
hydrogen, carboxy, carboxamido, alkyl, cycloalkyl, aryl and heteroaryl provided
that the compound of formula **14** is not paraformaldehyde;

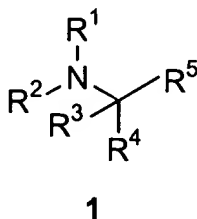providing compounds of formula **15** or formula **19**

$$R^5 \overset{\overset{\displaystyle R^6}{|}}{\underset{R^7}{B}} \qquad R^5 \overset{\overset{\displaystyle R^6}{|}}{\underset{R^7}{B}}{-}(R^8)_n X_n$$

15   **19**

where R^5 is selected from the group consisting of alkyl, cycloalkyl, aryl,

heteroaryl, alkenyl, alkynyl and allenyl; R^6, R^7 and R^8 are selected from the group

consisting of hydroxy, alkoxy, aryloxy, heteroaryloxy, chloro, bromo, fluoro,

iodo, carboxy, amino, alkylamino, dialkylamino, acylamino, carboxamido, thio,

alkylthio, arylthio, acylthio, alkyl, cycloalkyl, aryl, and heteroaryl, or together

form a methylene bridge of 3 to 7 atoms; X is a positive counter ion, and n is 0 or

1;

mixing said compounds of formula **13**, formula **14**, and formula **15** or **19** to form a

reaction mixture; and

allowing the reaction mixture to react to form the compound in the combinatorial library.
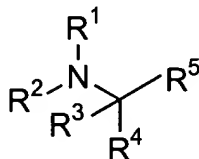
13-17. (Canceled).

18. (Previously presented) The combinatorial library of claim 12, wherein:

the combinatorial library includes a plurality of compounds of formula **1**:

$$R^2 \overset{\overset{\displaystyle R^1}{|}}{\underset{R^3}{N}}{-}\overset{\displaystyle R^5}{\underset{R^4}{\overset{|}{C}}}$$

1

Applicant : Nicos A. Petasis and Ilia A. Zavialov   Attorney's Docket No.: 06666-005002 / USC 2616
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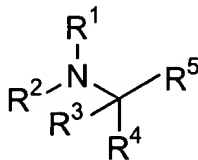19. (Previously presented) The combinatorial library of claim 12, wherein:

said combinatorial library is prepared by reacting a plurality of different compounds of one or more of formula **13**, formula **14**, formula **15** and/or formula **19** to generate a plurality of compounds of formula **1**:

$$R^2-\overset{\displaystyle \overset{R^1}{\underset{|}{N}}}{\underset{R^3}{}}\diagdown\overset{}{\underset{R^4}{}}\diagup R^5$$

1

20. (Previously presented) The combinatorial library of claim 12, wherein:

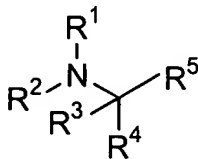said combinatorial library includes a mixture of different compounds of formula **1**:

$$R^2-\overset{\displaystyle \overset{R^1}{\underset{|}{N}}}{\underset{R^3}{}}\diagdown\overset{}{\underset{R^4}{}}\diagup R^5$$

1

said mixture being prepared from a reaction mixture including a plurality of different compounds of one or more of formula **13**, formula 14, formula 15, and/or formula **19**.

21. (Previously presented) The combinatorial library of claim 18, wherein:

said combinatorial library includes a plurality of different compounds of formula **1**:

$$R^2-\overset{\displaystyle \overset{R^1}{\underset{|}{N}}}{\underset{R^3}{}}\diagdown\overset{}{\underset{R^4}{}}\diagup R^5$$

1

each of the plurality of different compounds of formula 1 being located at a different position in an array.

Claims 22-28. (Cancelled).

29. (Previously presented) The combinatorial library of claim 12, wherein:

mixing the compounds of formula **13**, formula **14** and formula **15** or **19** to form a reaction

mixture includes mixing the compounds of formula **13**, formula **14** and formula **15** or **19** in the

presence of air.

Claims 30-33. (Canceled).

34. (Withdrawn) The combinatorial library of claim 12, wherein:

said reaction mixture includes at least one compound of formula **14** for which R^3 is

hydroxyaryl and at least one of the compounds of formula **1** is an amino phenol.

35. (Previously presented) The combinatorial library of claim 12, wherein:

at least one of the compounds of formula **13, 14, 15** or **19** is chiral and the combinatorial

library includes at least one of the compounds of formula **1** that is produced stereoselectively:

$$R^2-\underset{R^3}{\overset{\overset{\displaystyle R^1}{\underset{|}{N}}}{}}\!\!\diagdown\!\!\underset{R^4}{\overset{}{\diagup}}\!\!R^5$$

1
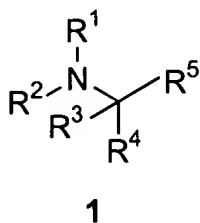
36. (Previously presented) The combinatorial library of claim 19, wherein:

said combinatorial library is further prepared by transforming one or more of the plurality

of compounds of formula **1** to generate the combinatorial library.

37. (Previously presented) The combinatorial library of claim 12, wherein:

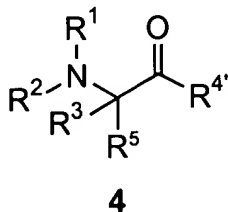the combinatorial library includes a plurality of α-amino acid derivatives of formula:
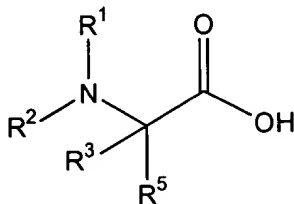
38. (currently amended) The combinatorial library of claim ~~37~~12, wherein:

the combinatorial library includes a plurality of β,γ-unsaturated-α-amino acid derivatives of formula **23**:

23
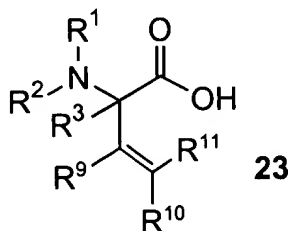
where R^9, R^{10} and R^{11} are selected from the group consisting of hydrogen, alkyl, cycloalkyl, aryl, heteroaryl, alkenyl, alkynyl, allenyl, alkoxy, aryloxy, heteroaryloxy, chloro, bromo, fluoro, iodo, carboxy, amino, alkylamino, dialkylamino, acylamino, carboxamido, thio, alkylthio, arylthio, and acylthio~~, provided that R^10 and R^11 are not both hydrogen~~

39. (Previously presented) The combinatorial library of claim 12, wherein:

the combinatorial library includes a plurality of α-amino carbonyl derivatives of formula **4**:

4

where $R^{4'}$ is selected from the group consisting of hydrogen, hydroxy, alkoxy, aryloxy, heteroaryloxy, carboxy, amino, alkylamino, dialkylamino, acylamino, carboxamido, thio, akylthio, arylthio, acylthio, alkyl, cycloalkyl, aryl, and heteroaryl.

40. (Withdrawn) The combinatorial library of claim 12, wherein:

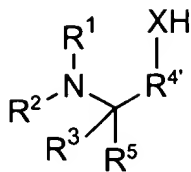the combinatorial library includes a plurality of N-carboxymethyl amino acid derivatives of formula **5**:

5
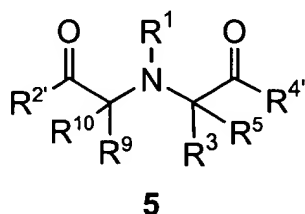
where $R^{2'}$ is selected from the group consisting of alkyl, cycloalkyl, aryl, heteroaryl, hydroxy, alkoxy, aryloxy, heteroaryloxy, acyl, carboxy, amino, alkylamino, dialkylamino, acylamino, carboxamido, alkylthio, arylthio, acylthio, trialkylsilyl, aryldialkylsilyl, diarylalkylsilyl, triarylsilyl, phosphinyl, alkylsulfonyl and arylsulfonyl, and R^1 and $R^{2'}$ can be connected together to form a bridge of 2 to 20 atoms;

$R^{4'}$ is selected from the group consisting of hydrogen, hydroxy, alkoxy, aryloxy, heteroaryloxy, carboxy, amino, alkylamino, dialkylamino, acylamino, carboxamido, thio, akylthio, arylthio, acylthio, alkyl, cycloalkyl, aryl, and heteroaryl; and

R^9 and R^{10} are selected from the group consisting of alkyl, cycloalkyl, aryl, heteroaryl, acyl and carboxy, and R^9 and R^{10} can be connected together or with other groups to form a bridge of 3 to 7 atoms.

41. (Withdrawn) The combinatorial library of claim 12, wherein:

the combinatorial library includes a plurality of 1,2-diamines and/or 1,2-amino alcohols of formula **29**:

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$$R^2-\overset{\displaystyle R^1}{\underset{\displaystyle R^3}{N}}\diagdown\overset{\displaystyle XH}{\underset{\displaystyle R^5}{\diagup R^{4'}}}$$

29

where $R^{4'}$ includes at least one carbon atom; and

X is selected from the group consisting of $-O-$, $-NR_a-$, and $-S-$, where Ra is selected from the group consisting of hydrogen, alkyl, aryl, heteroaryl, acyl, hydroxy, alkoxy, aryloxy, heteroaryloxy, amino, alkylamino, dialkylamino, and acylamino.

42. (Withdrawn) The combinatorial library of claim 12, wherein:

the compound of formula **14** is a carbohydrate selected from the group consisting of ribose, arabinose, xylose and arabinose; and

the combinatorial library includes a plurality of amino sugars.

43. (Previously presented) The combinatorial library of claim 12, wherein:

one of the compounds of formula **13**, **14**, or **15** or **19** is connected to a solid support.